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☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)**330.00**

## Complete if Known

Application Number	09/381,334
Filing Date	November 18, 1999
First Named Inventor	KARI VIRTANEN
Examiner Name	Iqbal, Khawar
Art Unit	2686
Attorney Docket No.	060258-0264014

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1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
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### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	
Independent Claims	- 3** =	X	
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)**0.00**

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

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1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing brief in support of an appeal	330.00
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

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SUBTOTAL (3) (\$)**330.00**

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Appln. No: 09/381,334	Atty: Carlo M. Cotrone/sm
First Inventor: KARI VIRTANEN	Date: August 24, 2004
Title: RADIO NETWORK ACCESS MECHANISM	Attorney Docket No: 060258-0264014

**ENCLOSED:**

☒ Fee Transmittal

OTHER:

CURRENT DUE DATE:



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re PATENT APPLICATION of:

Confirmation No.: 3837

VIRTANEN

Group Art Unit: 2686

Appln. No.: 09/381,334

Examiner: Iqbal, Khawar

Filed: November 18, 1999

Title: RADIO NETWORK ACCESS MECHANISM

**BRIEF ON APPEAL**

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**TABLE OF CONTENTS**

I.	INTRODUCTION.....	2
A.	Real Party in Interest.....	2
B.	Statement of Related Appeals and Interferences .....	2
C.	Status of Claims .....	2
D.	Status of Amendments .....	2
II.	SUMMARY OF THE INVENTION .....	3
A.	Features of the Invention.....	3
B.	The Claims On Appeal.....	3
III.	ISSUES AND REJECTIONS .....	6
IV.	GROUPING OF CLAIMS .....	6
V.	ARGUMENT .....	7
A.	The Law Regarding Anticipation Under 35 U.S.C. § 102(e).....	7
B.	Rejection Under 35 U.S.C. § 102(e) .....	7
1.	Karlsson .....	7
2.	Group I: Claims 1 and 7 Are Not Anticipated by Karlsson .....	8
3.	Group II: Claim 3 Is Not Anticipated by Karlsson .....	10
4.	Group III: Claim 4 Is Not Anticipated by Karlsson .....	10
5.	Group IV: Claim 6 Is Not Anticipated by Karlsson.....	10
6.	Group V: Claims 2 and 13 Are Not Anticipated by Karlsson.....	11
7.	Group VI: Claim 5 Is Not Anticipated by Karlsson.....	12
8.	Group VII: Claims 8, 9, and 11 Are Not Anticipated by Karlsson .....	13
9.	Group VIII: Claim 10 Is Not Anticipated by Karlsson .....	14
10.	Group IX: Claim 12 Is Not Anticipated by Karlsson.....	15
VI.	CONCLUSION .....	15
VII.	APPENDIX.....	16

## **I. INTRODUCTION**

This Appeal is from an Office Action mailed March 22, 2004, rejecting claims 1-13 of the above-identified application.

### **A. Real Party in Interest**

The real party in interest for this Appeal and the present application is Nokia Networks Oy, by way of an Assignment recorded in the U.S. Patent and Trademark Office at Reel 010441, Frame 0734.

### **B. Statement of Related Appeals and Interferences**

There are presently no appeals or interferences known to Appellant, Appellant's representatives, or the Assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **C. Status of Claims**

Claims 1-13 are pending, and claim 14 has been canceled without prejudice or disclaimer. Claims 1-13 stand rejected, and are on appeal. The claims on appeal are set forth in the attached Appendix. Claims 1, 2, and 8 are independent. Claims 3, 4, 6, and 7 depend from claim 1; claims 5 and 13 depend from claim 2; and claims 9-12 depend from claim 8.

### **D. Status of Amendments**

An Amendment was filed in the U.S. Patent and Trademark Office on September 20, 1999 preliminarily amending claims to remove multiple dependencies. An Amendment was filed on July 23, 2002 in response to a May 8, 2002 Office Action. An Amendment was filed on November 7, 2002 in response to an August 21, 2002 Office Action. An Amendment was filed on March 19, 2003 in response to a December 19, 2002 Office Action. An Amendment was filed on January 30, 2004 in response to a June 3, 2003 Office Action and along with a Request for Continued Examination (RCE). All claim amendments have been entered and

are of record. The claims listed in the attached Appendix are the culmination of all the entered claim amendments.<sup>1</sup>

## **II. SUMMARY OF THE INVENTION**

### **A. Features of the Invention**

The invention is directed to methods and data structures relating to registration by a mobile station in a telecommunications system. A subscriber-specific access parameter, which may be stored in a home location register or in the mobile station, indicates whether a mobile subscriber is entitled to use a first network, a second network, or both networks supported by the telecommunications system. In an example implementation enabled by Appellant's invention, a subscriber can buy a dual mode mobile station and a subscription that entitles the subscriber to use only one type of network, another type of network, or both types supported by the subscriber's mobile station. Appellant's claimed invention is concerned with the subscriber's entitlement to use networks, not with the mobile station's operational characteristics.

### **B. The Claims On Appeal**

#### **Claim 1**

Independent claim 1 recites a method of registration in a telecommunications system by a mobile station. The telecommunications system comprises a home location register for maintaining subscriber data and supports a first network and a second network. The method comprises (1) maintaining the mobile subscriber data in the home location register, and sending, from another network element, a message to the home location register for requesting the mobile subscriber data; (2) the home location register maintaining a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks; (3) in response to the message for requesting the subscriber data, the home location register sending the mobile subscriber data and also the subscriber-specific access parameter; and (4) the network element that requested the mobile subscriber data using the subscriber-specific access parameter for

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<sup>1</sup> Appellant's representative, Carlo Cotrone, spoke with the Examiner and his supervisor by telephone on June 29, 2004. Appellant's representative pointed out that Karlsson et al. (discussed below) is merely cumulative of Josse et al. (U.S. Patent No. 6,104,929), on the basis of which the Examiner had previously rejected the claims.

restricting the access of the mobile subscriber only to the first network or to the second network. (See also specification at page 7, lines 13-21, 27-30; page 8, lines 12-29; page 9, lines 1-24.)

**Claim 2**

Independent claim 2 recites a method of registration in a telecommunications system by a mobile station. The telecommunications system comprises a home location register for maintaining subscriber data and supports a first network and a second network. The method comprises (1) storing, in the memory of a mobile station, mobile subscriber data and a subscriber-specific access parameter indicating whether the mobile subscriber is entitled to use the first network, the second network or both networks; and (2) the mobile station using the subscriber-specific access parameter to restrict the access of the mobile subscriber only to the first and/or the second network. (See also specification at page 7, lines 13-21, 31-35; page 8, lines 12-35; page 9, lines 1-24.)

**Claim 3**

Claim 3 depends from claim 1, reciting that the mobile subscriber's access can be restricted only to one network even though a short message service had been defined for the mobile subscriber. (See also specification at page 9, lines 25-33.)

**Claim 4**

Claim 4 depends from claim 1, reciting that the network element that requested the mobile subscriber data uses the subscriber-specific access parameter to prevent location updating in a network which the mobile subscriber is not entitled to use. (See also specification at page 9, line 34 to page 10, line 6.)

**Claim 5**

Claim 5 depends from claim 2, reciting that the mobile station independently decides not to send an attach request in a network which the mobile subscriber is not entitled to use. (See also specification at page 8, lines 30-35.)

**Claim 6**

Claim 6 depends from claim 1, reciting that the telecommunications system comprises a visitor location register, and that when a mobile station which is in the area of the visitor location register receives a call or a short message and the visitor location does not have data of the mobile subscriber in question, the subscriber-specific access parameter is used for restricting paging of the mobile station only to a network which the mobile subscriber is entitled to use. (See also specification at page 9, lines 1-24.)

**Claim 7**

Claim 7 depends from claim 1, reciting that the first network is a circuit-switched network and the second network is a packet-switched network. (See also specification at page 7, lines 18-21.)

**Claim 8**

Independent claim 8 recites a data structure comprising (1) mobile subscriber data in a telecommunications system which supports a first and a second network, and (2) a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks. (See also specification at page 7, lines 13-21, 27-35; page 8, lines 12-35; page 9, lines 1-24.)

**Claim 9**

Claim 9 depends from claim 8, reciting that the data structure is located in a home location register of the telecommunications system. (See also specification at page 8, lines 18-19.)

**Claim 10**

Claim 10 depends from claim 8, reciting that the data structure is located in the memory of the mobile station. (See also specification at page 7, lines 31-35.)



**Claim 11**

Claim 11 depends from claim 8, reciting that the first network is a circuit-switched network and the second network is a packet-switched network. (See also specification at page 7, lines 18-21.)

**Claim 12**

Claim 12 depends from claim 10, reciting that the data structure is located in a Subscriber Identity Module of the mobile station. (See also specification at page 7, lines 31-35.)

**Claim 13**

Claim 13 depends from claim 2, reciting that the first network is a circuit-switched network and the second network is a packet-switched network. (See also specification at page 7, lines 18-21.)

**III. ISSUES AND REJECTIONS**

The March 22, 2004 Office Action rejected all pending claims 1-13 under 35 U.S.C. § 102(e) over Karlsson et al. (U.S. Patent No. 6,222,829; hereafter "Karlsson"). Thus, the only issue on appeal is whether claims 1-13 are anticipated under 35 U.S.C. § 102(e) by Karlsson.

**IV. GROUPING OF CLAIMS**

Each claim of this patent application is separately patentable and upon issuance of a patent will be entitled to a separate presumption of validity under 35 U.S.C. § 282. For convenience in handling of this Appeal, the claims are grouped as follows:

Group I, claims 1 and 7;

Group II, claim 3;

Group III, claim 4;

Group IV, claim 6;

Group V, claims 2 and 13;

Group VI, claim 5;

Group VII, claims 8, 9, and 11;

Group VIII, claim 10; and

Group IX, claim 12.

Each of Groups I through IX will be argued separately herein. The groups do not stand or fall together.

## V. ARGUMENT

### A. The Law Regarding Anticipation Under 35 U.S.C. § 102(e)

35 U.S.C. §102(e) indicates that a person shall be entitled to a patent unless

(e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent. . .

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, MPEP § 2131.02 states that “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

### B. Rejection Under 35 U.S.C. § 102(e)

#### 1. Karlsson

Karlsson is directed to a method and apparatus for effectuating voice communication between a mobile station and a mobile radio network. A gateway server to the mobile radio network receives an incoming voice call for a destination mobile station and accesses information in the home location register pertaining to the status and location of the destination mobile station. A determination is made as to whether the destination mobile station is capable of operation in a voice mode using circuit-switched communications across a traffic channel. If the destination mobile station is capable of operation in voice mode, a circuit-switched communication on a traffic channel is established between the mobile radio network and the destination mobile station. Otherwise, if the destination mobile station is not capable of operation in the voice mode but is capable of supporting a packet-switched communication on a packet channel, the incoming voice call is routed to a voice gateway

server which converts the voice call to data packets, and routes the data packets to the mobile station across an IP communication network to a packet gateway server of the mobile radio network. The packet gateway server routes the call via a packet data channel of the mobile radio network to the destination mobile station using a packet data service. (Col. 1, line 62 to col. 2, line 17.)

2. Group I: Claims 1 and 7 Are Not Anticipated by Karlsson

Independent claim 1 of the present application recites a method of registration in a telecommunications system by a mobile station, which system comprises a home location register for maintaining subscriber data and supports a first network and a second network, the method comprising, *inter alia*:

the home location register maintaining a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks;

in response to said message for requesting the subscriber data, the home location register sending ... said subscriber-specific access parameter;

the network element that requested the mobile subscriber data using said subscriber-specific access parameter for restricting the access of the mobile subscriber only to the first network or to the second network.

Appellant respectfully submits that Karlsson does not teach or suggest at least these features.

Karlsson is directed to a method and apparatus for effectuating voice communication between a mobile station and a mobile radio network. Karlsson merely teaches that the home location register (HLR) 110 stores information related to the mobile station's operational characteristics. More specifically, Karlsson states that "[t]he HLR 110 stores information pertaining to the destination mobile station 130 such as *its operating mode*, the identity of the VMSC 120 currently servicing the destination mobile station 130 and routing information to the destination mobile station 130." (Col. 3, lines 7-11; emphasis added.)

In Karlsson, both circuit-switched and packet-switched communications are possible for routing a call. However, a destination mobile station may not be capable of operation in both modes. Accordingly, the information stored by the HLR 110 is used to determine the operational characteristics of the destination mobile station and to route the incoming call appropriately:

The GMSC [Gateway Mobile services Switching Center] 100 requests routing information from the HLR 110 for routing the incoming voice telephone call to the destination mobile station 130, and determines whether the *destination mobile station 130 is capable of operation* in voice mode based on the information provided by the HLR 110. If the *destination mobile station 130 is capable of operation* in voice mode, the HLR 110 provides the GMSC 100 with a response containing a pursuit routing number to the VMSC 120 and the incoming call is routed to the destination mobile station 130 as a circuit-switched communications on the traffic channel. If, on the other hand, the *destination mobile station is incapable of operation* in voice mode and the *destination mobile station 130 is capable of* supporting a packet-switched communication on a packet channel, the response from the HLR 110 contains a pursuit routing number to the Voice Gateway 200. The pursuit routing number to the Voice Gateway 200 indicates that the *destination mobile station 130 is incapable of operating* in voice mode and the GMSC 100 routes the incoming voice call, along with the response from the HLR 110, to the Voice Gateway 200. (Col. 3, line 52 to col. 4, line 5; emphasis added.)

As clearly demonstrated by the above passage, Karlsson is concerned entirely with the operational characteristics of a mobile station, not with a subscriber's entitlement to use a first or second network or both networks.

Distinct differences are evident between Karlsson and the claimed invention. For example, while Karlsson focuses on a mobile station, that is, a physical device, the claimed invention focuses on a subscriber, that is, a user of a physical device. Additionally, while Karlsson focuses on operational characteristics within a circuit-switched or packet-switched network, the claimed invention focuses on entitlement to operate within networks irrespective of operational characteristics. In further contrast to the claimed invention, access of a subscriber in Karlsson is not restricted to a first or second network. Instead, an incoming call is merely routed to a network that supports a mode in which the destination mobile station is capable of operation.

Therefore, in marked contrast to the claimed invention, Karlsson does not teach or suggest maintaining a subscriber-specific access parameter, sending such a parameter, or using such a parameter to restrict the access of the mobile subscriber only to a first network or a second network, as recited by claim 1.

As Karlsson does not teach or suggest all the features of claim 1, claim 1 is not anticipated by Karlsson, and the rejection must be withdrawn.

Claim 7 depends from claim 1. For at least the above reasons, claim 7 is not anticipated by Karlsson, and the rejection must be withdrawn.

3. Group II: Claim 3 Is Not Anticipated by Karlsson

Claim 3 depends from claim 1. Because claim 3 incorporates the above-identified features of claim 1 that are absent from Karlsson, claim 3 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that “the mobile subscriber’s access can be restricted only to one network even though a short message service had been defined for the mobile subscriber.” Karlsson does not restrict a subscriber’s access, but merely routes an incoming call to a network that supports a mode in which the destination mobile station is capable of operation. (See, e.g., col. 2, lines 1-17.) For at least this additional reason, claim 3 is not anticipated by Karlsson, and the rejection must be withdrawn.

4. Group III: Claim 4 Is Not Anticipated by Karlsson

Claim 4 depends from claim 1. Because claim 4 incorporates the above-identified features of claim 1 that are absent from Karlsson, claim 4 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that “the network element that requested the mobile subscriber data uses said subscriber-specific access parameter to prevent location updating in a network which the mobile subscriber is not entitled to use.” Karlsson does not use a subscriber-specific access parameter, and is not concerned with the mobile subscriber’s entitlement to use a particular network. Instead, the focus in Karlsson is on the mobile station’s capability to communicate over a particular network. (See, e.g., col. 3, line 50 to col. 4, line 5.) For at least this additional reason, claim 4 is not anticipated by Karlsson, and the rejection must be withdrawn.

5. Group IV: Claim 6 Is Not Anticipated by Karlsson

Claim 6 depends from claim 1. Because claim 6 incorporates the above-identified features of claim 1 that are absent from Karlsson, claim 6 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that “when a mobile station which is in the area of the visitor location register receives a call or a short message and the visitor location does not have data of the mobile subscriber in question, said subscriber-specific access parameter is used for restricting paging of the mobile station only to a network which the mobile subscriber is entitled to use.” Karlsson is not concerned with the mobile subscriber’s entitlement to use a particular network. Instead, the focus in Karlsson is on the

mobile station's capability to communicate over a particular network. (See, e.g., col. 3, line 50 to col. 4, line 5.) For at least this additional reason, claim 6 is not anticipated by Karlsson, and the rejection must be withdrawn.

6. Group V: Claims 2 and 13 Are Not Anticipated by Karlsson

Independent claim 2 recites a method of registration in a telecommunications system by a mobile station, which system comprises a home location register for maintaining subscriber data and supports a first network and a second network, the method comprising:

storing, in the memory of a mobile station, ... a subscriber-specific access parameter indicating whether the mobile subscriber is entitled to use the first network, the second network or both networks; and

the mobile station using said subscriber-specific access parameter to restrict the access of the mobile subscriber only to the first and/or the second network.

Appellant respectfully submits that Karlsson does not teach or suggest these features.

Karlsson merely teaches that the HLR 110—and not the mobile station's memory—stores information related to the mobile station's operational characteristics. Karlsson states that “[t]he HLR 110 stores information pertaining to the destination mobile station 130 such as *its operating mode*, the identity of the VMSC 120 currently servicing the destination mobile station 130 and routing information to the destination mobile station 130.” (Col. 3, lines 7-11; emphasis added.)

In Karlsson, both circuit-switched and packet-switched communications are possible for routing a call, but a destination mobile station may not be capable of operation in both modes. Accordingly, the information stored by the HLR 110 is used to determine the operational characteristics of the destination mobile station and to route the incoming call appropriately:

The GMSC [Gateway Mobile services Switching Center] 100 requests routing information from the HLR 110 for routing the incoming voice telephone call to the destination mobile station 130, and determines whether the *destination mobile station 130 is capable of operation* in voice mode based on the information provided by the HLR 110. If the *destination mobile station 130 is capable of operation* in voice mode, the HLR 110 provides the GMSC 100 with a response containing a pursuit routing number to the VMSC 120 and the incoming call is routed to the destination mobile station 130 as a circuit-switched communications on the traffic channel. If, on the other hand, the *destination mobile station is incapable of operation* in voice mode and the

*destination mobile station 130 is capable of* supporting a packet-switched communication on a packet channel, the response from the HLR 110 contains a pursuit routing number to the Voice Gateway 200. The pursuit routing number to the Voice Gateway 200 indicates that the *destination mobile station 130 is incapable of operating* in voice mode and the GMSC 100 routes the incoming voice call, along with the response from the HLR 110, to the Voice Gateway 200. (Col. 3, line 52 to col. 4, line 5; emphasis added.)

Therefore, Karlsson is concerned entirely with the operational characteristics of a mobile station, not with a subscriber's entitlement to use a first or second network or both networks.

Karlsson is distinctly different from the claimed invention. For example, while Karlsson focuses on a mobile station, that is, a physical device, the claimed invention focuses on a subscriber, that is, a user of a physical device. Additionally, while Karlsson focuses on operational characteristics within a circuit-switched or packet-switched network, the claimed invention focuses on entitlement to operate within networks irrespective of operational characteristics. In further contrast to the claimed invention, access of a subscriber in Karlsson is not restricted to a first or second network. Instead, an incoming call is merely routed to a network that supports a mode in which the destination mobile station is capable of operation. Moreover, while the HLR of Karlsson stores, and the GMSC of Karlsson uses, information concerning operating mode of the mobile station, it is the mobile station in the claimed invention that stores and uses an access parameter.

Therefore, in clear contrast to the claimed invention, Karlsson does not teach or suggest storing, in the memory of a mobile station, a subscriber-specific access parameter, or the mobile station using such parameter to restrict the access of the mobile subscriber only to the first and/or the second network.

As Karlsson does not teach or suggest all the features of claim 2, claim 2 is not anticipated by Karlsson, and the rejection must be withdrawn.

Claim 13 depends from claim 2. For at least the above reasons, claim 13 is not anticipated by Karlsson, and the rejection must be withdrawn.

7. Group VI: Claim 5 Is Not Anticipated by Karlsson

Claim 5 depends from claim 2. Because claim 5 incorporates the above-identified features of claim 2 that are absent from Karlsson, claim 5 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that “the mobile station independently decides not to send an attach request in a network which the mobile subscriber is not entitled to use.” Karlsson is not concerned with the mobile subscriber’s entitlement to use a particular network. Instead, the focus in Karlsson is on the mobile station’s capability to communicate over a particular network. In addition, the GMSC of Karlsson, not the mobile station, determines whether a mobile station is capable of operation in a circuit-switched or packet-switched mode. (See, e.g., col. 3, line 50 to col. 4, line 5.) For at least this additional reason, claim 5 is not anticipated by Karlsson, and the rejection must be withdrawn.

8. Group VII: Claims 8, 9, and 11 Are Not Anticipated by Karlsson

Independent claim 8 recites a data structure comprising, *inter alia*, “a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks.” Appellant respectfully submits that Karlsson does not teach or suggest at least this feature.

Karlsson merely teaches that the HLR 110 stores information related to the mobile station’s operational characteristics. Karlsson states that “[t]he HLR 110 stores information pertaining to the destination mobile station 130 such as *its operating mode*, the identity of the VMSC 120 currently servicing the destination mobile station 130 and routing information to the destination mobile station 130.” (Col. 3, lines 7-11; emphasis added.)

In Karlsson, both circuit-switched and packet-switched communications are possible for routing a call, but a destination mobile station may not be capable of operation in both modes. The information stored by the HLR 110 is used to determine the operational characteristics of the destination mobile station and to route the incoming call appropriately:

The GMSC [Gateway Mobile services Switching Center] 100 requests routing information from the HLR 110 for routing the incoming voice telephone call to the destination mobile station 130, and determines whether the *destination mobile station 130 is capable of operation* in voice mode based on the information provided by the HLR 110. If the *destination mobile station 130 is capable of operation* in voice mode, the HLR 110 provides the GMSC 100 with a response containing a pursuit routing number to the VMSC 120 and the incoming call is routed to the destination mobile station 130 as a circuit-switched communications on the traffic channel. If, on the other hand, the *destination mobile station is incapable of operation* in voice mode and the *destination mobile station 130 is capable of* supporting a packet-switched communication on a packet channel, the response from the HLR 110 contains a pursuit routing number to the Voice Gateway 200. The pursuit routing number to the Voice Gateway 200 indicates that the *destination mobile station*



*130 is incapable of operating* in voice mode and the GMSC 100 routes the incoming voice call, along with the response from the HLR 110, to the Voice Gateway 200. (Col. 3, line 52 to col. 4, line 5; emphasis added.)

It is clear from the above passage that Karlsson is concerned solely with the operational characteristics of a mobile station, not with a subscriber's entitlement to use a first or second network or both networks.

Distinct differences are evident between Karlsson and the claimed invention. For example, while Karlsson focuses on a mobile station, that is, a physical device, the claimed invention focuses on a subscriber, that is, a user of a physical device. Further, while Karlsson focuses on operational characteristics within a circuit-switched or packet-switched network, the claimed invention focuses on entitlement to operate within networks irrespective of operational characteristics.

Therefore, in definite contrast to the claimed invention, Karlsson does not teach or suggest a data structure comprising a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use a first network, a second network or both networks.

As Karlsson does not teach or suggest all the features of claim 8, claim 8 is not anticipated by Karlsson, and the rejection must be withdrawn.

Claim 9 depends from claim 8. For at least the above reasons, claim 9 is not anticipated by Karlsson, and the rejection must be withdrawn.

Claim 11 depends from claim 8. For at least the above reasons, claim 11 is not anticipated by Karlsson, and the rejection must be withdrawn.

#### 9. Group VIII: Claim 10 Is Not Anticipated by Karlsson

Claim 10 depends from claim 8. Because claim 10 incorporates the above-identified feature of claim 8 that is absent from Karlsson, claim 10 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that "the data structure is located in the memory of the mobile station." In Karlsson, the HLR stores and the GMSC accesses information to determine whether a mobile station is capable of operation in a circuit-switched or packet-switched mode. No such information is stored in memory of the mobile station in Karlsson. (See, e.g., col. 3, line 50 to col. 4, line 5.) For at least this additional reason, claim 10 is not anticipated by Karlsson, and the rejection must be withdrawn.

10. Group IX: Claim 12 Is Not Anticipated by Karlsson

Claim 12 depends from claim 8. Because claim 12 incorporates the above-identified feature of claim 8 that is absent from Karlsson, claim 12 is not anticipated by Karlsson.

Moreover, Karlsson fails to teach or suggest that "the data structure is located in a Subscriber Identity Module of the mobile station." In Karlsson, the HLR stores and the GMSC accesses information to determine whether a mobile station is capable of operation in a circuit-switched or packet-switched mode. No such information is stored in a Subscriber Identity Module of the mobile station in Karlsson. (See, e.g., col. 3, line 50 to col. 4, line 5.) For this additional reason, claim 12 is not anticipated by Karlsson, and the rejection must be withdrawn.

**VI. CONCLUSION**

For at least the reasons discussed above, it is respectfully submitted that claims 1-13 are not anticipated by Karlsson. Appellant respectfully requests this Honorable Board to reverse the rejection of the claims.

Respectfully submitted,

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## VII. APPENDIX

Claims 1-13 are as follows:

1. A method of registration in a telecommunications system by a mobile station, which system comprises a home location register for maintaining subscriber data and supports a first network and a second network, the method comprising:

maintaining the mobile subscriber data in the home location register, and sending, from another network element, a message to the home location register for requesting the mobile subscriber data;

the home location register maintaining a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks;

in response to said message for requesting the subscriber data, the home location register sending the mobile subscriber data and also said subscriber-specific access parameter;

the network element that requested the mobile subscriber data using said subscriber-specific access parameter for restricting the access of the mobile subscriber only to the first network or to the second network.

2. A method of registration in a telecommunications system by a mobile station, which system comprises a home location register for maintaining subscriber data and supports a first network and a second network, the method comprising:

storing, in the memory of a mobile station, mobile subscriber data and a subscriber-specific access parameter indicating whether the mobile subscriber is entitled to use the first network, the second network or both networks; and

the mobile station using said subscriber-specific access parameter to restrict the access of the mobile subscriber only to the first and/or the second network.

3. A method according to claim 1, wherein the mobile subscriber's access can be restricted only to one network even though a short message service had been defined for the mobile subscriber.

4. A method according to claim 1, wherein the network element that requested the mobile subscriber data uses said subscriber-specific access parameter to prevent location updating in a network which the mobile subscriber is not entitled to use.

5. A method according to claim 2, wherein the mobile station independently decides not to send an attach request in a network which the mobile subscriber is not entitled to use.

6. A method according to claim 1, wherein the telecommunications system comprises a visitor location register; and

when a mobile station which is in the area of the visitor location register receives a call or a short message and the visitor location does not have data of the mobile subscriber in question, said subscriber-specific access parameter is used for restricting paging of the mobile station only to a network which the mobile subscriber is entitled to use.

7. A method according to claim 1, wherein the first network is a circuit-switched network and the second network is a packet-switched network.

8. A data structure comprising:  
mobile subscriber data in a telecommunications system which supports a first and a second network; and  
a subscriber-specific access parameter which indicates whether the mobile subscriber is entitled to use the first network, the second network or both networks.

9. A data structure according to claim 8, wherein the data structure is located in a home location register of the telecommunications system.

10. A data structure according to claim 8, wherein the data structure is located in the memory of the mobile station.

11. A data structure according to claim 8, wherein the first network is a circuit-switched network and the second network is a packet-switched network.

12. A data structure according to claim 10, wherein the data structure is located in a Subscriber Identity Module of the mobile station.

13. A method according to claim 2, wherein the first network is a circuit-switched network and the second network is a packet-switched network.

14. (Canceled)